

棘跳虫属一新种

(弹尾目:棘跳科)

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1980—1982年,我们连续在广东自然保护区鼎湖山考察跳虫,采到大量标本,种类也很丰富。我们使用漂浮法,仅一个上午就采到近千头棘跳虫科棘跳虫标本,经鉴定是一新种。该种生活于落叶层的土壤和腐烂叶片之间。取食腐烂叶片,可能对肥沃土壤有一定意义。故对其形态作较详细的描述并作扫描电镜观察。模式标本保存于广东省昆虫研究所。

鼎湖棘跳虫 *Onychiurus dinghuensis* 新种(图1—9,图版I:1—9)

体较小,略细长,体长1.1—1.3毫米,白色,圆筒形。皮肤粒细小,分布均匀。口器咀嚼式,上颚端部有两个粗钝而平的齿。体毛细小,分布稀疏均匀。

触角4节,比头稍短,触角与头之比为19:22。触角第I节最短,第IV节最长,第II节和第III节等长。触角各节之比为I:II:III:IV = 12:18:18:30。触角第III节上的感觉器由5个感觉突,5条保护毛,2条光滑短小的感棍和2个直立光滑的感球组成。每个触角基部有3个椭圆形的拟单眼,略成弓形排列。头部后缘每边有2个拟单眼。角后器位于一个长椭圆形的浅窝内,并由25—27个茄状的囊组成,每个囊与感觉器的长轴垂直排列,围成一个长椭圆形,其周围有6条长的护卫刚毛。大爪发达,略弯曲,无齿。后足小爪无基叶,但基部较宽,向末端均匀变窄,末端尖锐。前足大爪无齿,小爪基部有加宽的基叶,向端部变尖,小爪为大爪长的2/3。在大爪侧方有一个强大而弯曲的侧爪。胸部拟单眼:前胸背板2+2;中胸背板2+2;后胸背板1+1。

腹部第I节背板每边有2个拟单眼,第II节背板每边有1个拟单眼,第III节背板每边有2个拟单眼,第IV节背板每边有2个拟单眼,第V节背板每边有1个拟单眼,第VI节背板无拟单眼。雌虫生殖孔如图。身体背面拟单眼排列:3, 2/2, 2, 1/2, 1, 2, 2, 1, 0。弹器完全退化。肛刺2个,发达粗壮,微弯,位于较高的肛突上,肛刺周围有6—8条粗长的刚毛。肛刺与大爪之比为9:13。

比较 本新种与 *Onychiurus furciferus* (Borner, 1901) 相似。但新种无弹器,爪无齿,触角上的感觉器的感球光滑无颗粒,可明显区别。

正模: ♀, C₇₀, 广东高要鼎湖山庆云寺附近。1980. V. 12, 林善祥、夏风采。副

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插图由孙宏同志复墨,魏剑榆同志拍摄扫描电镜照片,均致衷心感谢。

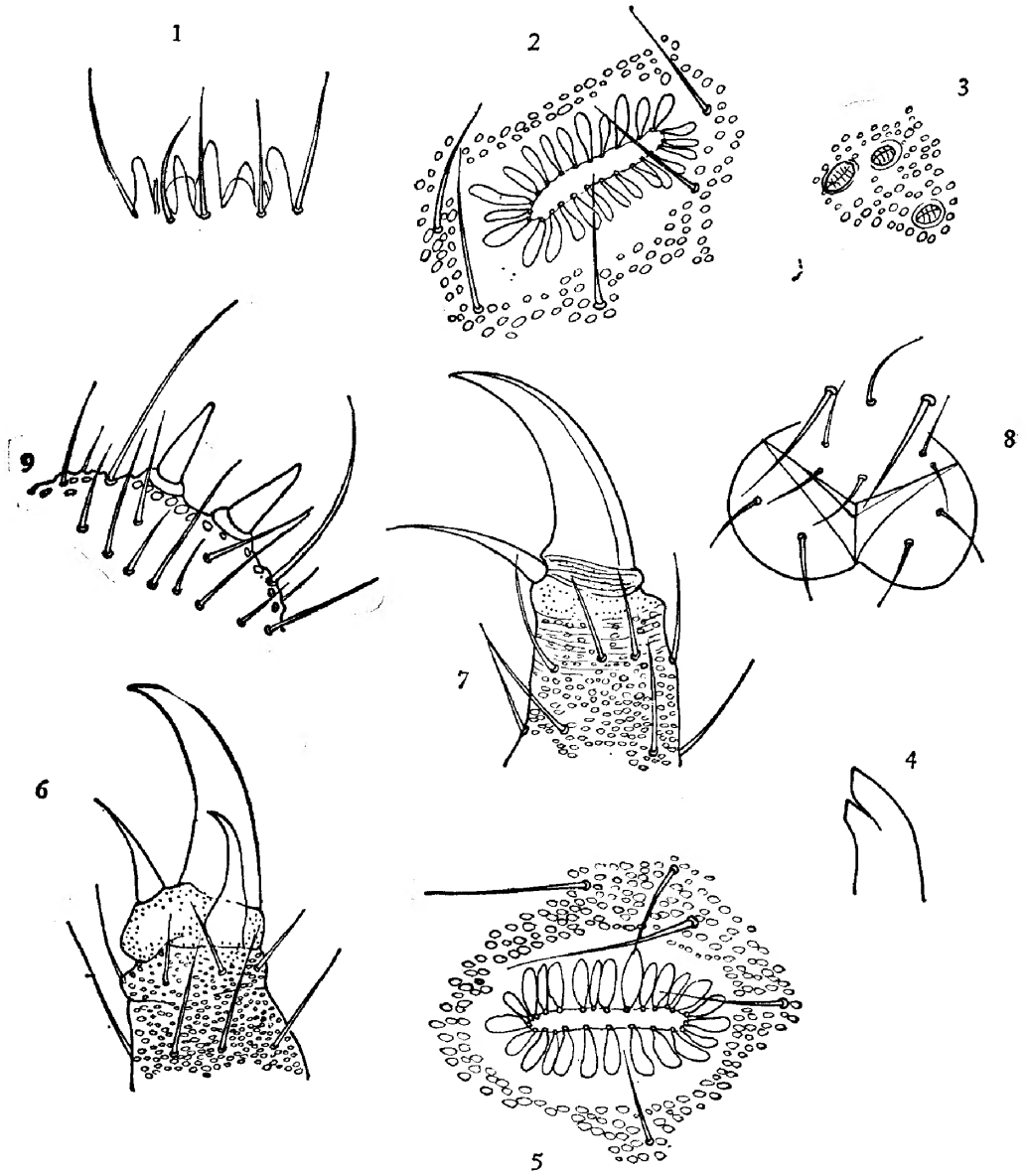


图 1—9 鼎湖棘跳虫 *Onychiurus dinghuensis* sp. nov.

1. 触角第 III 节上的感觉器 2. 角后器 3. 触角基部拟单眼 4. 大颚 5. 另一个虫体上的觉后器 6. 前足端部 7. 后足端部 8. ♀ 生殖孔 9. 肛刺

模：1,000 多个标本，采集日期、地点同正模。该虫大量栖于落叶湿润土壤及腐烂落叶中。

A NEW SPECIES OF *ONYCHIURUS*
(COLLEMBOLA: ONYCHIURIDAE)

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From 1980 to 1982, lots of Collembola of the genus *Onychiurus* were collected from Dinghu Mountian, South China. It is a new species, described as follows:

***Onychiurus dinghuensis*, sp. nov.** (Figs. 1—9) (Plate I: 1—9)

Body white, small and slender. Body length: 1.1—1.3 mm.

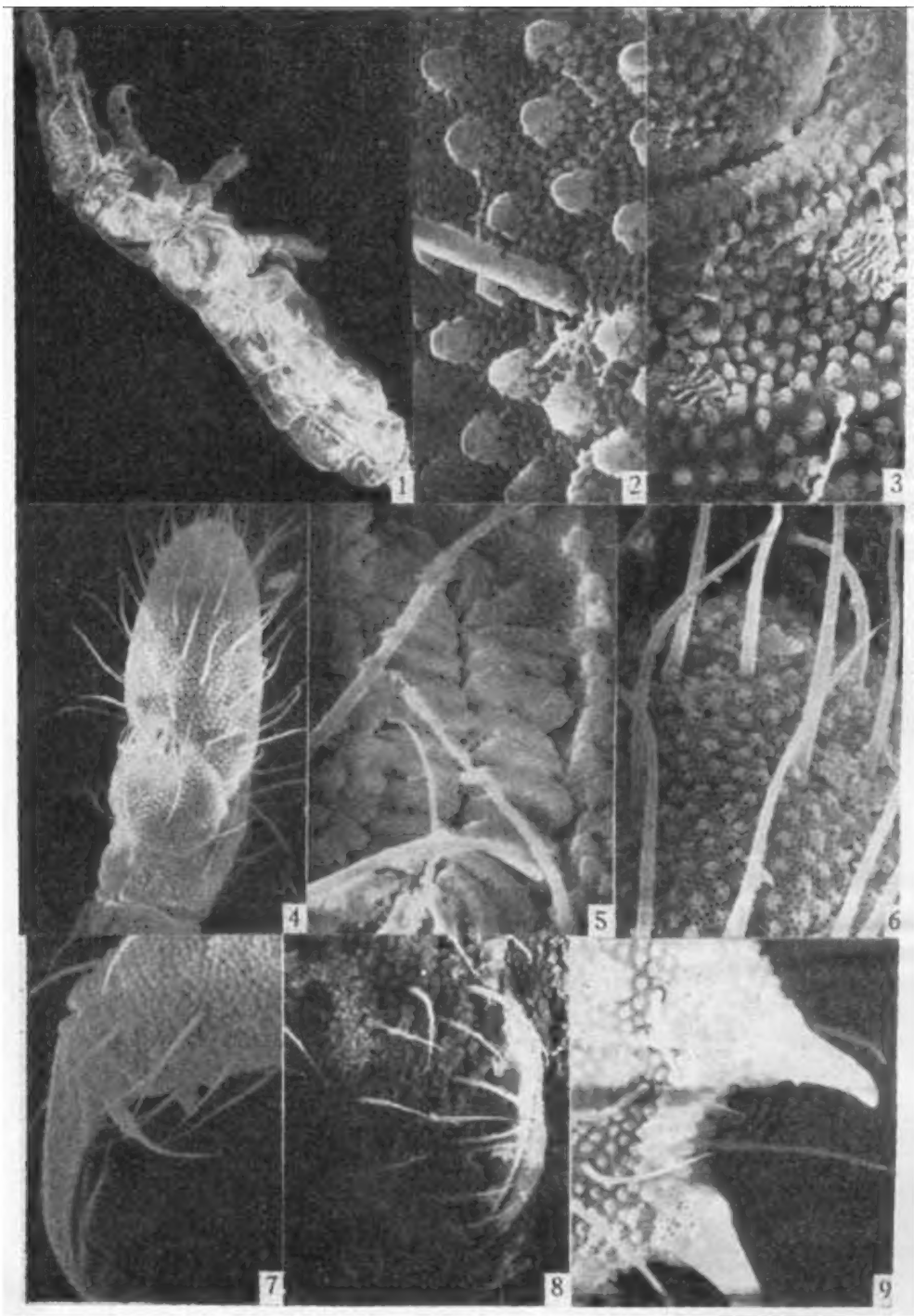
Antennae shorter than head with 4 segments. Ant.: head as 19:22. Ant. I shortest, Ant. IV longest, Ant. II is as long as Ant. III. Ratio of Ant. I:II:III:IV are as 12:18:18:30. sense organ of Ant. III with 2 ovate, erect, smooth sense clubs, 5 guard setae, 5 sense papillae and 2 sense rods. Mandible with 2 coarse stout teeth. Postantennal organ elongate with 25—27 simple tubercles. Unguis without teeth, unguiculus of third legs without basal lobe, but unguiculus of first legs with basal lobe, gradually tapering, with a strong lateral unguis at base of unguis. Pseudocelli as follows: Prothorax, dorsal 2+2; Mesothorax dorsal 2+2; Metathorax, dorsal 1+1. Furca absent. Anal spines strong, conical, pointed, weakly curved; a little shorter than the inner side of the unguis. Anal spine: unguis as 9:13. Pseudocelli are arranged on segments of the abdomen as follows: 2+2; 1+1; 2+2; 2+2; 1+1; 0.

This new species resembles to *Onychiurus furciferus* (Borner, 1901), but differs from it in furca absent, unguis without teeth and sense club smooth on sense organ of Ant. III.

Holotype: ♀, C₇₀, nearby Chingyung temple of Dinghu Mountian, Gaoyu county, Guangdong Province. 12. V. 1980. Collected by Lin Shan-xiang, Xia Feng.

Paratypes: A lot of specimens, locality, collection date same as for holotype.

All type specimens are deposited in Guangdong Institute of Entomology.



鼎湖棘跳虫 *Onychiurus dinghuensis* sp. nov.

1. 成虫侧面 2. 头部皮肤粒 6000× 3. 触角基部拟单眼 4. 触角III—IV节及其上的感觉器
5. 角后器 6. 触角端部 7. 后足端部 8. ♀生殖孔侧面 9. 肛刺